CLAIMS

What is claimed is:

1. A polypeptide comprising a high mobility group box protein (HMGB) A box or variant thereof which can inhibit release of a proinflammatory cytokine from a cell treated with high mobility group box (HMGB) protein, wherein said HMGB A box is selected from the group consisting of an HMG1L5 A box, an HMG1L1 A box, an HMG1L4 A box, an HMGB A box polypeptide of BAC clone RP11-395A23, an HMG1L9 A box, an LOC122441 A box, an LOC139603 A box, and an HMG1L8 A box.

2. A polypeptide comprising a high mobility group box protein (HMGB) A box which can inhibit release of a proinflammatory cytokine from a cell treated with high mobility group box (HMGB) protein, wherein said HMGB A box is selected from the group consisting of an HMG1L5 A box, an HMG1L1 A box, an HMG1L4 A box, an HMGB A box polypeptide of BAC clone RP11-395A23, an HMG1L9 A box, an LOC122441 A box, an LOC139603 A box, and an HMG1L8 A box.

3. A polypeptide wherein the polypeptide is a high mobility group box protein (HMGB) A box biologically active fragment or variant thereof which can inhibit release of a proinflammatory cytokine from a cell treated with high mobility group box (HMGB) protein, wherein said HMGB A box biologically active fragment is selected from the group consisting of an HMG1L5 A box fragment, an HMG1L1 A box fragment, an HMG1L4 A box fragment, an HMGB A box polypeptide of BAC clone RP11-395A23 fragment, an HMG1L9 A box fragment, an LOC122441 A box fragment, an LOC139603 A box fragment, and an HMG1L8 A box fragment.

4. A polypeptide wherein the polypeptide is a high mobility group box protein (HMGB) A box biologically active fragment which can inhibit release of a proinflammatory cytokine from a cell treated with high mobility group box (HMGB) protein, wherein said HMGB A box biologically active fragment is selected from the group consisting of an HMG1L5 A box fragment, an HMG1L1 A box fragment, an HMG1L4 A box fragment, an HMGB A box polypeptide fragment of BAC clone RP11-395A23, an HMG1L9 A box fragment, an LOC122441 A box fragment, an LOC139603 A box fragment, and an HMG1L8 A box fragment.

5. A composition comprising a polypeptide comprising a high mobility box protein (HMGB) A box or variant thereof which can inhibit release of a proinflammatory cytokine from a cell treated with high mobility group box (HMGB) protein in a pharmaceutically acceptable excipient, wherein said HMGB A box is selected from the group consisting of an HMG1L5 A box, an HMG1L1 A box, an HMG1L4 A box, an HMGB A box polypeptide of BAC clone RP11-395A23, an HMG1L9 A box, an LOC122441 A box, an LOC139603 A box, and an HMG1L8 A box.

6. A composition comprising a polypeptide comprising a high mobility box protein (HMGB) A box which can inhibit release of a proinflammatory cytokine from a cell treated with high mobility group box (HMGB) protein in a pharmaceutically acceptable excipient, wherein said HMGB A box is selected from the group consisting of an HMG1L5 A box, an HMG1L1 A box, an HMG1L4 A box, an HMGB A box polypeptide of BAC clone RP11-395A23, an HMG1L9 A box, an LOC122441 A box, an LOC139603 A box, and an HMG1L8 A box.

7. A composition comprising a polypeptide wherein the polypeptide is a high mobility group box protein (HMGB) A box biologically active fragment or variant thereof which can inhibit release of a proinflammatory cytokine from a cell treated with high mobility group box (HMGB) protein in a pharmaceutically acceptable excipient, wherein said HMGB A box biologically active fragment is selected from the group consisting of an HMG1L5 A box fragment, an HMG1L1 A box fragment, an HMG1L4 A box fragment, an HMGB A box polypeptide fragment of BAC clone RP11-395A23, an HMG1L9 A box fragment, an LOC122441 A box fragment, an LOC139603 A box fragment, and an HMG1L8 A box fragment.

8. A composition comprising a polypeptide wherein the polypeptide is a high mobility group box protein (HMGB) A box biologically active fragment which can inhibit release of a proinflammatory cytokine from a cell treated with high mobility group box (HMGB) protein in a pharmaceutically acceptable excipient, wherein said HMGB A box biologically active fragment is selected from the group consisting of an HMG1L5 A box fragment, an HMG1L1 A box fragment, an HMG1L4 A box fragment, an HMGB A box polypeptide fragment of BAC clone RP11-395A23, an HMG1L9 A box fragment, an LOC122441 A box fragment, an LOC139603 A box fragment, and an HMG1L8 A box fragment.

9. A purified preparation of antibodies that specifically bind to a high mobility group box protein (HMGB) B box but do not specifically bind to non-B box epitopes of HMGB, wherein said antibodies can inhibit release of a proinflammatory cytokine from a cell treated with HMGB, wherein said HMGB B box is selected from the group consisting of an HMG1L5 B box, an HMG1L1 B box, an HMG1L4 B box, and an HMGB B box polypeptide of BAC clone RP11-395A23.

10. A polypeptide comprising a high mobility group box protein (HMGB) B box or variant thereof, but not comprising a full length HMGB, wherein said polypeptide can cause release of a proinflammatory cytokine from a cell, and wherein said HMGB B box is selected from the group consisting of an HMG1L5 B box, an HMG1L1 B box, an HMG1L4 B box, and an HMGB B box polypeptide of BAC clone RP11-395A23.

11. A polypeptide comprising a high mobility group box protein (HMGB) B box, but not comprising a full length HMGB, wherein said polypeptide can cause release of a proinflammatory cytokine from a cell, and wherein said HMGB B box is selected from the group consisting of an HMG1L5 B box, an HMG1L1 B box, an HMG1L4 B box, and an HMGB B box polypeptide of BAC clone RP11-395A23.

12. A polypeptide wherein the polypeptide is a high mobility group box protein (HMGB) B box biologically active fragment or variant thereof, wherein said HMGB B box biologically active fragment is selected from the group consisting of an HMG1L5 B box fragment, an HMG1L1 B box fragment, an HMG1L4 B box fragment, and an HMGB B box polypeptide fragment of BAC clone RP11-395A23.

13. A polypeptide wherein the polypeptide is a high mobility group box protein (HMGB) B box biologically active fragment, wherein said HMGB B box biologically active fragment is selected from the group consisting of an HMG1L5 B box fragment, an HMG1L1 B box fragment, an HMG1L4 B box fragment, and an HMGB B box polypeptide fragment of BAC clone RP11-395A23.

14. A method of treating a condition in a patient characterized by activation of an inflammatory cytokine cascade, comprising administering to the patient a

purified preparation of antibodies that specifically bind to a high mobility group box protein (HMGB) B box but do not specifically bind to non-B box epitopes of HMGB, in an amount sufficient to inhibit the inflammatory cytokine cascade, wherein said HMGB B box is selected from the group consisting of an HMG1L5 B box, an HMG1L1 B box, an HMG1L4 B box, and an HMGB B box polypeptide of BAC clone RP11-395A23.

15. A method of treating a condition in a patient characterized by activation of an inflammatory cytokine cascade, comprising administering to the patient a polypeptide comprising a high mobility group box protein (HMGB) A box or variant thereof which can inhibit release of a proinflammatory cytokine from a cell treated with high mobility group box (HMGB) protein in an amount sufficient to inhibit release of the proinflammatory cytokine from the cell, wherein said HMGB A box is selected from the group consisting of an HMG1L5 A box, an HMG1L1 A box, an HMG1L4 A box, an HMGB A box polypeptide of BAC clone RP11-395A23, an HMG1L9 A box, an LOC122441 B box, an LOC139603 A box, and an HMG1L8 A box.

16. A method of treating a condition in a patient characterized by activation of an inflammatory cytokine cascade, comprising administering to the patient a polypeptide, wherein said polypeptide is a high mobility group box protein (HMGB) A box biologically active fragment or variant thereof which can inhibit release of a proinflammatory cytokine from a cell treated with high mobility group box (HMGB) protein in an amount sufficient to inhibit release of the proinflammatory cytokine from the cell, wherein said HMGB A box is selected from the group consisting of an HMG1L5 A box, an HMG1L1 A box, an HMG1L4 A box, an HMGB A box polypeptide of BAC clone RP11-395A23 A box, an HMG1L9 A box, an LOC122441 A box, an LOC139603 A box, and an HMG1L8 A box.

17. A method for effecting weight loss or treating obesity in a patient, comprising administering to the patient an effective amount of a polypeptide comprising a high mobility group box protein (HMGB) B box or variant thereof, but not comprising a full length HMGB polypeptide, in an amount sufficient to stimulate the release of a proinflammatory cytokine from a cell, wherein said HMGB B box is selected from the group consisting of an HMG1L5 B box, an HMG1L1 B box, an HMG1L4 B box, and an HMGB B box polypeptide of BAC clone RP11-395A23.

18. A method for effecting weight loss or treating obesity in a patient, comprising administering to the patient an effective amount of a polypeptide, wherein said polypeptide is a high mobility group box protein (HMGB) B box biologically active fragment or a variant thereof in an amount sufficient to stimulate the release of a proinflammatory cytokine from a cell, wherein said HMGB B box biologically active fragment is selected from the group consisting of an HMG1L5 B box fragment, an HMG1L1 B box fragment, an HMG1L4 B box fragment, and an HMGB B box polypeptide fragment of BAC clone RP11-395A23 B box.

19. A method of determining whether a compound inhibits inflammation, comprising combining the compound with

(a) a cell that releases a proinflammatory cytokine when exposed to a high mobility group box protein (HMGB) B box or a biologically active fragment thereof; and (b) the HMGB B box or biologically active fragment thereof, wherein said HMGB B box is selected from the group consisting of an HMG1L5 B box, an HMG1L1 B box, an HMG1L4 B box, and an HMGB B box polypeptide of BAC clone RP11-395A23; then determining whether the compound inhibits the release of the proinflammatory cytokine from the cell.